Abstract

Title: Analysis of the motion and position on the movement of the human body during scuba diving.

Objectives: The goal of this work is to find out which movements our body, as a complex mechanism, does during diving with diving equipment. The statistics was made with five probands in the set of six measurements. This statics supposed to show us what effect does speed of swimming on body possition when the flutter kick or frog kick is used. The move in frontal and vertical axis of the swimmer will be evaluated in both style of swimming, also the observational error will be evaluated. The goal of this work is not to messure exact angles but how those angles changes according to speed of swimming. Last but not least will be determined the conection between speed of swimming and body position.

Methods: For this work was used method of collecting data in real conditions by measuring device and statistical evaluation of collected data.

Results: Results are presented by graphs where are the measured data of all probands. These data are compared with each other and added to another graphs. In tables there are correlation coefficient for link between size of angel and velocity of swimming under water surface. It was found that with high association the size of angle between the axis of the body and the ideal horizontal position is decreasing while increasing the speed, both with flutter kick and frog kick.

Keywords: scuba diving, body position, speed of swimming, flutter kick, frog kick